

July 17, 2024

VIA EMAIL AND HAND DELIVERY

Department of Land Conservation & Development
635 Capitol St NE #150
Salem, OR 97301

Re: Objections to 2024 Metro CFEC Major Report, 2023 Regional Transportation Plan and Regional Framework Plan Amendments

Dear Director of the Oregon Department of Land Conservation and Development (DLCD):

No More Freeways, a volunteer-led campaign, and Joe Cortright, an individual, work to oppose freeway expansions within Portland's urban growth boundary. Metro's Regional Transportation Plan (RTP) sets the stage for the financing and construction of significant freeway improvements, including the \$1.9 billion dollar Rose Quarter Freeway Expansion, adding more lanes of freeway that will encourage more people to drive, creating more traffic.

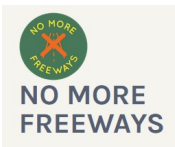
Introduction

In order to approve Metro's Regional Transportation Plan, the Director of the Oregon Department of Land Conservation and Development **must affirmatively find** that Metro:

- has met the performance targets set in accordance with OAR 660-012-0910, and has adopted local amendments to implement any approved land use and transportation scenario plan as provided in OAR 660-044-0130; or
- has proposed adequate corrective actions to address any performance targets that were not met and adequate to meet any performance targets set as provided in OAR 660-012-0910.¹

Conversely then, the DLCD **must** deny if Metro has failed to show the same and must refer the report for a compliance hearing as provided in OAR 660-012-0920. This comment serves to clearly identify deficiencies in the submitted report and therefore will argue that Metro has not adequately met either burden set forth above. Thus, the DLCD **must** refer the report for a compliance hearing.

¹ OAR 660-012-0915(4)(a)(b)



Participation in the Process

No More Freeways and Joe Cortright have actively participated in the process for the review and adoption of the RTP Amendments through the following actions:

- On November 30, 2023 Joe Cortright testified (via electronic conferencing) to the Metro Council on the Regional Transportation Plan.
- On November 29, 2023, Joe Cortright submitted 5 documents as written testimony to the Metro Council on the Regional Transportation Plan.²
- On November 16, 2023, Joe Cortright testified (via electronic conferencing) to the Joint Policy Advisory Committee on Transportation.
- On October 25, 2023, Joe Cortright testified (via electronic conferencing) to the Metro Policy Advisory Committee on Transportation.
- On September 28th, 2023, Chris Smith testified to Metro Council on behalf of No More Freeways with regard to the ordinance adopting the Regional Transportation Plan including comments specifically addressing Greenhouse Gas accounting.
- On August 15th 2023, No More Freeways submitted extensive comments on the RTP, including the climate topic.
- On July 27, 2023, 2023, Joe Cortright testified (via electronic conferencing) to the Metro Council on the Regional Transportation Plan.
- On July 27, 2023, Joe Cortright submitted written testimony to the Metro Council on the Regional Transportation Plan (Cortright to Metro Council, July 27, 2023).

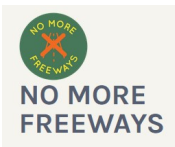
Summary of Metro's Requirements

1. Metro must set performance targets for "each reporting year for each performance measure in OAR 660-044-110 and 012-905."³
2. The performance targets must be reported every four or five years.⁴

² Cortright RTP Climate Objection (attached as Appx A); Cortright RTP Lying about Climate Nov2023.pdf (Appx B); Cortright Metro's Don't Look Up Climate Policy.pdf (Appx C); and Cortright RTP Climate Fraud.pdf, Cortright RTP Climate Sabotage.pdf (Appx D).

³ OAR 660-012-910

⁴ OAR-660-044-110(10)(c)



3. Targets must be set at levels reasonably likely to achieve the regional performance targets from the STS.⁵
4. Targets must include "actual performance for the data elements."⁶
5. Metro must submit a major report "on progress toward meeting the [targets]" and that this report must include:
 - a. An assessment of whether the city, county, or Metro has met or is on track to meet each performance target for each reporting year between the base year and planning horizon year.⁷
6. The major report must cover each regional and local performance measure in 660-012-905 and 660-044-110.⁸
7. Metro's adopted plan must include "[p]erformance measures and methodologies that cities and counties will use to report on implementation of the preferred land use and transportation scenario, including:
 - a. Regional performance measures to determine whether outcomes are progressing to achieve the projected reductions in greenhouse gas emissions. The regional performance measures must include actual performance for the data elements used to project greenhouse gas emissions as described in OAR 660-044-0030.⁹

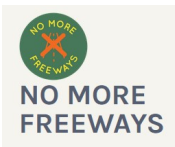
⁵ OAR 660-012-910(1)

⁶ OAR 660-044-110(9)(a)

⁷ OAR 660-012-900(2)

⁸ OAR 660-012-900(7)(c)

⁹ OAR 660-044-110(9)



I. Metro Fails to Report the Required Data to Show Regional and Local Performance

Metro has failed to adequately report its actual progress—how much it has reduced VMT and greenhouse gas emissions. Metro conflates its speculative, forward-looking statements (i.e. "our models show we'll eventually achieve this objective") with its required obligation to report actual progress since the plan was adopted (i.e. VMT/capita was x in 2010 and is y in 2022). The reporting of data in a major report is necessarily retrospective and factual. Projected future progress carries no weight when it comes to meeting the requirement that Metro report on actual reductions in VMT/GHG.¹⁰

A. Metro is required to report actual performance, not projections

OAR 660-044-110(9) says Metro's adopted plan must include

"Performance measures and methodologies that cities and counties will use to report on implementation of the preferred land use and transportation scenario, including:

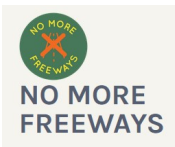
(a) Regional performance measures to determine whether outcomes are progressing to achieve the projected reductions in greenhouse gas emissions. The regional performance measures must include **actual performance** for the data elements used to project greenhouse gas emissions as described in OAR 660-044-0030."

[emphasis added]

Metro's failure to disclose actual progress for each of the past two planning periods (i.e. through 2018, and through 2023) undercuts a key premise of the CFEC rule and of Metro's climate plan: that the region would periodically establish how well it is proceeding toward achieving its stated objectives, and that this information would then inform any needed changes in strategy.

Metro, DLCD and ODOT have all acknowledged that plans for achieving greenhouse reductions are based on a range of assumptions about vehicle and fuel technology and policies, which may or may not come to pass, and which will almost certainly turn out to be different than admittedly speculative initial forecasts. A premise of these plans (Metro's Climate Smart Strategy, DLCD's CFED rule and ODOT's STS) is that all agencies will faithfully and accurately monitor actual progress over time to assess the accuracy and reliability of these assumptions. These plans are also premised on the promise that they will adjust the requirements of the plans as needed to reflect this actual progress.

¹⁰ Stated another way, Metro has had an adopted climate plan under state law for a decade (i.e. since the Climate Smart Strategy in 2014). The purpose of the reporting requirement is to faithfully and honestly disclose how much actual/real progress we've made in reaching those goals. This requirement to report on retrospective progress using actual data exists independent of and in addition to Metro's obligation to demonstrate that the RTP will someday achieve the required reductions.



Not reporting actual progress subverts the policy foundations of the CFEC rule. These reporting requirements constitute a vital public disclosure to inform policy makers and all Oregonians as to whether actual progress is being made toward this stated objective. Repeating model-based predictions that they may achieve the goal in some future year fails to comply with Metro's legal obligation to fairly and honestly disclose how much progress it has made so far.

In its CFEC report Metro claims to be using "observed data sources" and "existing regional performance monitoring" but it has not included this "observed data" in the CFEC report.

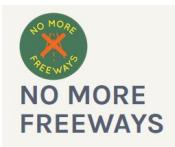
To monitor and assess implementation of the Climate Smart Strategy, Metro will continue to use observed data sources and existing regional performance monitoring and reporting processes to the extent possible. These processes include regularly scheduled updates to the Regional Transportation Plan and Urban Growth Report and reporting in response to ORS 197.301 and ORS 197.296. When observed data is not available, data from regional or state models may be reported. Metro staff will continue to consult with DLCD, DOE, DEQ and ODOT on the assumptions and methods used and on the presentation of results

If future assessments find the region is deviating significantly from the Climate Smart Strategy performance monitoring targets, then Metro will work with local, regional and state partners to consider the revision or replacement of policies and actions to ensure the region remains on track with meeting adopted targets for reducing greenhouse gas emissions.¹¹

B. Metro failed to provide "actual performance" for the data elements used to project GHG emissions.

To demonstrate compliance with the reporting requirements of OAR 660-012-0900 Metro should have presented evidence showing how the actual performance of the region during the past several years compares to the trajectory called for in the scenario plan adopted to demonstrate compliance with the region's greenhouse gas reduction policy. There are three key performance measures in the RTP: per capita VMT, greenhouse gas emissions, and emission rates. Metro's report omits actual performance data on each of these measures. We have added the missing information from data prepared by state and local agencies, documented in **Appx. A**.

¹¹ Metro, CFEC Report, page E-33



II. Metro's Regional Transportation Plan Fails to Show the Required 30% Reduction in VMT Per Capita by 2045.

Metro is required to adopt a Regional Transportation Plan ("RTP") in which Vehicle Miles Traveled ("VMT") declines by 30 percent from 2005 levels by 2045.

OAR 660-012-0160(6) provides:

Metro **shall** adopt a regional transportation plan in which the projected vehicle miles traveled per capita at the horizon year using the financially-constrained project list **is lower than** the estimated vehicle miles traveled per capita at the base year by an amount that is consistent with the metropolitan greenhouse gas reduction targets in OAR 660-044-0020.

*emphasis added

Further, the Climate Friendly and Equitable Communities (CFEC) update to the Transportation Planning Rule OAR 660-012-0160(6) requires Metro to adopt a regional transportation plan *in which the projected vehicle miles traveled per capita of the financially constrained project list is consistent with the region's metropolitan greenhouse gas (GHG) reduction target.*¹² Further still, Metro's Climate Smart Strategy¹³ which was incorporated into both the 2018 and 2023 Regional Transportation Plans calls for a reduction in VMT per capita in the region in order to achieve state-mandated greenhouse gas reduction goals.

Metro is unable to meet this required benchmark and they have knowingly attempted to introduce ambiguity in order to circumvent their legal obligation. Their adopted RTP¹⁴ clearly shows the region won't achieve any decrease in VMT per capita.

A. Two Sets of Books

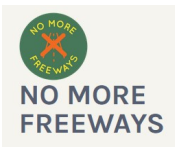
Metro uses two models when estimating future levels of vehicle travel in the Portland area: the Regional Travel Demand Model (RTDM) and Vision Eval (VE). The RTDM has been used extensively in planning for decades. It is the model the federal government requires and relies upon. It is the model that regional officials tout as "best in class"¹⁵, this is the model that is

¹² CFEC Report, May 30, 2023, page 1, emphasis added.

¹³ Adopted by Metro in 2014 and approved by the DLCDC

¹⁴ As evidenced by the results of the RTDM - which Metro is using to plan and implement its related projects/spending/policy,

¹⁵ See, for example, Matt Ransom, Director of the Regional Transportation Council, and co-maintainer of the Metro Regional Travel Demand Model, at the Interstate Bridge Executive Steering Group (ESG) November 17, 2021 ESG at approximately Timestamp: 1:44



used to assess legal compliance with the National Environmental Policy Act. This is the model that Metro planners use to calculate future travel and congestion patterns in the RTP.

Metro has a second model, one which it uses only for the limited purpose of asserting that its RTP complies with the OAR 660-012-0160.

The two models make very different projections about the future trajectory of VMT in the Portland Metropolitan area. The RTDM concludes that VMT per capita will remain essentially flat from now through 2045. The VE/RSTM Model predicts VMT per capita will fall from 16.5 miles per person per day in 2005 to 10.7 miles per person per day in 2045. The RTDM results, reported as Appendix I to the RTP show VMT/capita changing from 11.3 in 2020 to 11.2 in 2045; this translates into more than 9 million more miles of daily travel than the figures based on the VE Model.

Metro has made no attempt to reconcile the differing predictions of the two models, despite acknowledging the necessity of doing so. Metro Planner Kim Ellis stated.:

Technically, the main question that Metro and its partner agencies face in using these two separate tools in the RTP update is how to compare and translate results between the two, so that the initial VisionEval analysis of GHG scenarios leads to a final RTP that meets GHG reduction targets.¹⁶

a. Metro Claims its Modeling Shows its RTP Will Meet the Required Reduction Goal

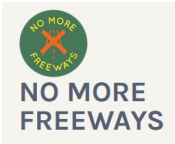
The RTP is expected to meet state-mandated targets for reducing per capita household-based VMT and corresponding per capita greenhouse gas emissions from household light-duty vehicles by 2045. Under the RTP, per capita VMT falls to 10.7 miles per day, a 35% reduction below 2005 levels, surpassing the target to reduce GHG emissions to 30% below 2005 levels by 2045.¹⁷

Metro uses two models to forecast future VMT/capita: The Vision Eval (VE-RSPM) model and the Regional Travel Demand Model. The estimates generated by the Regional Travel Demand Model (RTDM) show that there will be no decrease in VMT/Capita between 2020 and 2045. The estimates generated by the VE-RSPM Model claim that the VMT/capita will decrease by 35 percent between 2005 and 2045. These two models produce entirely different views of the change in demand for transportation in the region over the next two decades. The VE-RSPM modeling implies there will be less vehicle travel in 2045 than there is today; the RTDM modeling implies that there will be about 25 percent more vehicle travel than there is per day.

i. These contradictory forecasts are presented in Appendix I and Appendix J of the Regional Transportation Plan.

¹⁶ Ellis 2022 Memo, p. 7

¹⁷ CFEC Report, May 30, 2023, page E-12.



The RTP Climate Analysis (Appendix J, page 9) claims, based on the Vision Eval (VE-RSPM) model that per capita VMT will decline by 31 percent from 2020 levels by 2045.¹⁸

3. The RTP supports state goals to reduce greenhouse gas emissions and is expected to meet state-mandated targets for reducing per capita greenhouse gas emissions from household light-duty vehicles by 2045.

- By 2045, the plan, together with advancements in fleet and technology, is expected to **reduce per capita annual greenhouse gas emissions from light-duty household vehicles by 80.1 percent** (compared to 2020 levels) and **reduce total greenhouse gas emissions from light-duty household vehicles by 76.7 percent** (compared to 2020 levels).
- By 2045, the plan, together with advancements in fleet and technology, is expected to **reduce VMT per capita of light-duty household vehicles by 39 percent** (compared to 2005 levels) and by 31 percent from (compared to 2020 levels).

The immediately preceding portion of the plan—Appendix I, System Performance Measures—presents an entirely different picture of future travel growth. Here, the RTP uses its transportation demand model to estimate how much we’ll drive in the future under various scenarios. According to this RTDM modeling, per capita driving in the Oregon portion of the metropolitan area will decline by just two-tenths of one percent from current levels, from 11.3 miles per person per day in 2020, to 11.2 miles per person per day in 2045.¹⁹

Metro
 2023 Regional Transportation Plan (RTP) Update
 System Performance Measures for Intra-MPA* Trips
* within Metropolitan Planning Area (excludes Clark County, Washington)

Preliminary draft - subject to refinement
4/12/23

	2020 Base	2030		2045		2045	
		No Build	Constrained	No Build	Constrained		
4	AWD Total Passenger Vehicle VMT	19,749,377	22,037,188	21,675,951	25,679,428	25,008,277	
	change from 2020		2,287,811	1,930,624	5,880,101	5,254,950	26.6%
	change from No Build			-357,237.0	-1.6%	-425,151.0	-2.4%
5	AWD Passenger Vehicle VMT/Capita	11.3	11.4	11.2	11.4	11.2	
	change from 2020		0.1	0.5%	-0.1	-1.2%	0.1
	change from No Build			-0.2	-1.6%	-0.2	-1.7%

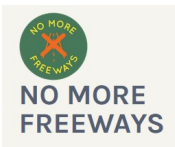
This duplicity is important, because in Appendix J, Metro has concocted a scenario in which the state government imposes very high per mile fees on driving, causing VMT per person to decline sharply. But the rest of the RTP, as shown in Appendix I, makes no such assumptions; it plans for a world where we won’t charge drivers much more than they pay today, aside for some tolls, and that we’ll invest in big capacity expansion projects, like the Interstate Bridge and the I-5 Rose Quarter freeway widening. In reality, as Metro’s performance measures report shows, the region has no intention or expectation of meeting state VMT reduction requirements, and is going to continue building car infrastructure as if it were 1950, rather than to head off a devastating climate crisis by 2050.

b. A huge difference in future travel demand

¹⁸ RTP Appendix J: Climate: VMT per capita will decline 31 percent from 2020 levels.

RTP Appendix I: System Performance: VMT per capita will decline 0.2 percent from 2020 levels.

¹⁹ Data located in Appendix I: Performance Evaluation Documentation



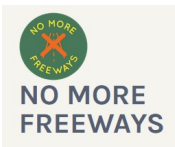
These two model results present unexplained and irreconcilable differences of visions about the future travel patterns in the Metro area. This becomes clear when we look at what these two visions imply for the total volume of vehicle travel which would be accommodated in 2045. We have analyzed Metro's figures for the two models, and compared the effect of the different growth rates in VMT/capita between the two models.

We begin with the VE-RSPM Model results. Metro planner Kim Ellis provided us with detailed figures showing 2005 and 2045 estimated population, vehicle miles per capita per day, and greenhouse gas emissions per capita.(Ellis 2024 Email) From these data we extracted (algebraically) the implied total regional daily VMT (i.e.: Population multiplied by VMT/capita/day equals total VMT). To summarize, Metro's VE-RSPM model claims that population will increase from 1.35 million to 2.0 million from 2005 to 2045, and that VMT per capita VMT per capita will decline from 16.5 miles per day in 2020 to 10.7 miles per day in 2045 (RTP "Constrained" scenario). This means total travel in the region will decline from about 24.2 million miles per day in 2020 to about 21.4 million miles per day.

The regional travel demand model (reflected in RTP Appendix I), presents a very different projection for future regional travel patterns. It predicts that per capita VMT will decline by about 1 percent between 2020 and 2045. This decline in VMT per capita (about 0.1 miles per person per day over 25 years) means that total miles traveled will increase because population is expected to increase at nearly 1 percent per year (about ten times faster than per person driving declines).

Because the VE-RSPM (Appendix J) and RTDM (Appendix I) use different base years, we interpolate the 2020 values for the VE-RSPM based on information provided in the RTP. The RTP claims that the VE-RSPM results show that VMT/person/day will decline 31 percent from 2020 to 2045. This implies that 2020 the value for VMT/person/day was 15.5 miles.

Using that value, we've interpolated the intermediate (i.e. 2020) values for the VE-RSPM modeling. The following table shows Metro's reported estimates from the VE-RSPM modeling (shown in bold), and the interpolated values for 2020 (shown in italic), and the values for the RTDM based on applying the RTDM VMT/day growth rate to the base 2005 values from the VE-RSPM. This allows an apples-to-apples comparison of the magnitude of the differences of the growth rates of the two models for total regional travel. While the requirements of OAR 660-044-0020 are expressed in miles per capita, the critical variable for transportation planning is the estimate of total miles traveled in the region: total miles constitutes the "transportation need" that the RTP is designed to accommodate.



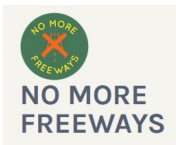
	Appendix J (VE-RSPM)	
<u>Year</u>	<u>2023 RTP + STS</u>	<u>Appendix I (RTDM)</u>
Population		
2005	1,347,761	1,347,761
2020	1,561,854	1,561,854
2045	2,000,758	2,000,758
VMT/capita/day		
2005	16.5	16.5
2020	15.5	15.5
2045	10.7	15.4
Pct. Change, 2005-2045	-35%	-7%
VMT/day		
2005	22,238,057	22,238,057
2020	24,220,049	24,220,049
2045	21,408,111	30,751,679
Change 2020-45	(2,811,938)	6,531,630

In the aggregate, using 2005 as a base year (to correspond to the base year for OAR 660-012-0160), the VE-RSPM model is predicting that total regional vehicle travel declines by more than 10 percent from about 24.2 million miles per day in 2020, to about 21.4 million miles per day in 2045. Based on the much lower rate of change in VMT/person/day predicted by the RTDM, total VMT in the region are predicted to increase. Population growth more than offsets all of the gains in reduced travel per person. The regional travel demand model is predicting that VMT in the region will grow from 24.2 million miles per day to about 30.8 million miles per day, an increase of about 25 percent from today’s levels.

Metro, ODOT, and others are using the RTDM results to determine transportation needs and plan capacity expansion to accommodate additional travel. The much higher level of VMT in the RTDM is being used to size the capacity of the 2045 travel system, expanding capacity to accommodate additional travel that will cause the region to fail to achieve its legally mandated VMT reduction goals. If we believe Metro’s Climate Plan, the RTP should be planning for a world where we travel about 3 million fewer miles (more than 10 percent less than we do today). But in reality, Metro is using its regional travel demand model to plan for a world where we drive 6.5 million miles more daily—about 25 percent more.

- c. The RTP relies on the Regional Travel Demand Model (RTDM) for major policy decisions, and for project evaluation. The RTP presents the VE-RSPM modeling only for the purposes of asserting compliance with state GHG rules; the VMT estimates from the VE-RSPM modeling do not control or affect regional policies or project selection.**

Metro admits that it is using two separate models and needs to reconcile the RTDM to the VE-RSPM in order to assure that climate targets are met. In 2022, as it explained how it would develop the RTP, Metro staff wrote:



VisionEval is better suited to evaluate and compare the relative effectiveness of different packages of GHG reduction strategies. It is also responsive to state climate policies. **The travel model is better suited to conduct the final analysis of the RTP, and its use is required by federal regulations.** Technically, the main question that Metro and its partner agencies face in using these two separate tools in the RTP update is how to compare and translate results between the two, so that the initial VisionEval analysis of GHG scenarios leads to a final RTP that meets GHG reduction targets.²⁰

Despite acknowledging the need to “compare and translate” the different results from its two sets of models, Metro did nothing to reconcile the different outputs of the two models. Metro points out that it uses the RTDM for the bulk of its project assessment and also commits to using the RTDM for quantifying progress in reducing greenhouse gasses.

The travel model will likely remain the primary tool for quantifying greenhouse gas reductions, as well as other performance measures, for the 2023 RTP.²¹

Despite this assurance, Metro did not include the VMT figures from the RTDM (Appendix I) in its report to DLCD. Appendix I clearly shows that Metro is using the RTDM for its performance measures, and the level of VMT/capita is completely inconsistent with the estimates from VE.

Instead, Metro now claims that DLCD directed it to use VE/RSPM.

DLCD has clarified that VE-RSPM is the preferred tool for evaluating progress toward meeting the DLCD Target Rule GHG reductions. Given the differences between MOVES- and VisionEval-based GHG estimates discussed above, Metro cannot use MOVES in its GHG analysis. The ideal approach would be to use a tool that is consistent with both the VisionEval model that the state used to set targets and with the network-based model that is used to assess all other aspects of the RTP’s performance, but no such tool is currently available. Metro therefore used VE-RSPM in the 2023 RTP climate analysis in order to ensure that results are comparable to targets.²²

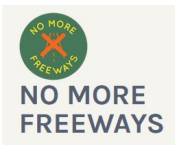
MOVES is a red herring: irrelevant to assessing compliance with Metro’s legal obligation to reduce VMT. MOVES is a federal model that estimates air pollution from transportation. The MOVES model does not estimate VMT, which is the issue at hand. Instead, the MOVES model uses VMT estimates from an external source—in this case, the RTDM—to estimate pollution from vehicle travel. Metro provides no explanation for the disparity between the RTDM estimates (no change in VMT/capita through 2045), and the VE-RSPM estimates of a 25 to 30 percent decline in VMT/capita.

Both the VE-RSPM and the RTDM estimate VMT. Metro does not deny this, nor does it explain the discrepancies in the growth trajectories for the two models. Metro uses the VE-RSPM modeling separately from the rest of the RTP, and for no other purposes than to claim

²⁰ Ellis Memorandum, November 9, 2022

²¹ *Id.*

²² Metro, CFEC Report, May 30, page E-20 (emphasis added)



compliance with DLCDC regulations. Metro uses the RTDM for all other aspects of the RTP, including project selection and evaluation. Metro has made no attempt to reconcile or explain the profound discrepancy between the RTDM model and the VE-RSPM model.

Metro falsely asserts that it can ignore its own RTDM estimates showing no decline in VMT per capita because the RTDM has somewhat different definitions and a different scope than the VE-RSPM model. Regardless of these definitional and scope differences, the two models predict very different trajectories for VMT growth, ones that cannot be reconciled and are not explained.

There is no question that RTDM and VE_RSPM models use somewhat different definitions of which vehicles are covered, which people are covered and which trips are covered. This is what accounts for the difference in overall average VMT/capita between the two measures. But these differences are very much like comparing measurements made in degrees fahrenheit and measurements made in degrees celsius: The values in degrees for the two systems can't be directly compared, but in both cases, an increase in the number of degrees means warmer and a decrease means. While the levels and scales of the two measures aren't directly commensurable, that problem disappears if we focus on the change over time. Isolating the change in emissions--a difference-in-difference comparison--between RTDM vs. VE-RSPM excludes the effects of these different definitions. Regardless of the differences in the definitions and measurement scales of the two models, their results are pointing in exactly opposite directions, with RTDM predicting a big increase in driving, and VE-RSPM predicting a sizable decrease. Metro simply cannot explain why it is relying on a model that predicts a dramatically different trajectory for driving than is called for to meet its climate obligations.

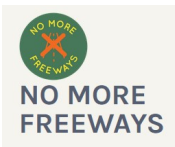
d. Metro acknowledges that it has not included the effects of the STS policies (i.e. carbon taxes, per mile fees and additional road pricing) in the 2023 RTP.

Applying the STS pricing policies was Metro's option and Metro's decision, but once it chose to use those in the RTP, it was obligated to use them throughout. What Metro has done is to cherry-pick what it will use the STS assumptions for: It applies STS assumptions in its climate analysis, but not in its actual transportation planning. It has said as much:

New revenue mechanisms in the STS include a road user charge that levies carbon taxes, per-mile fees on drivers, and other additional road pricing beyond what is currently included in the 2023 RTP. **These changes are not reflected in the RTP** because they are not yet adopted in state policies or regulations, but the climate analysis for the RTP is allowed to include them because these state-led pricing actions are adopted in STS and because the state agencies assumed significant implementation of new pricing when setting the region's climate targets in 2017.²³

What this means is that Metro assumes these additional policies for the purposes of asserting compliance with future emission reductions, but then does not apply these policies in

²³ CFEC Report, May 30, 2023, page Page E-21, ATTACHMENT 1: SUPPLEMENTAL CLIMATE ANALYSIS FINDINGS AND RECOMMENDATIONS (emphasis added).



the RTP. These policies are instrumental to the level of demand predicted by the Regional Travel Demand model. In reality Metro is planning a transportation system with no change in VMT/capita between today and 2045. This failure to include the STS induced reductions in VMT in its RTDM transportation modeling, which it uses “to assess all other aspects of the RTP’s performance” puts the RTP in violation of OAR OAR 660-012-0160.

e. Metro’s actual RTP implementation, as evidenced by project planning and modeling assumes vastly more driving that is consistent with climate requirements.

Metro uses its regional travel demand model (RTDM) to plan and implement transportation projects, including the projects in the Regional Transportation Plan. Metro does not use the outputs of the Vision Eval (VE-RPSM) model to plan, select, or evaluate projects, nor does it determine whether the effects of such projects are consistent with the mileage reductions required under OAR 660-012-0160.

As comments from Metro staff make clear, the RTDM is the definitive and controlling model for the RTP. Metro’s chief modeler, Thaya Patton, explained this in an agency presentation called “Modeling 101”:

I talk about the four step model, which has a lot of different names. You can see it's here the center of the little universe we've presented you. It's the travel model. We call it Kate. It's the trip-based model, it's the main model, it's the big model, it's the passenger model, and most importantly, it's the federally mandated model. So this is a model we need to use for the RTP. What is it? So the model is basically a simulation of all the ground transport in our region. So we're capturing things like busses, like cars, like bikes and pedestrians, and we are recreating them.²⁴

The RTDM is, as Patton says, the federally mandated model. Metro’s website is clear:

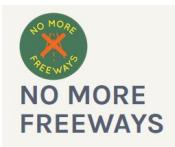
The Federal Highway Administration, Federal Transit Administration and U.S. Environmental Protection Agency require that project analysis be carried out using methods and modeling tools that meet certain guidelines. Metro’s travel demand models are regularly reviewed by the appropriate federal agencies and expert panels to ensure that they meet federal guidelines and meet or exceed the standard practices of other travel demand models used throughout the country.²⁵

We obtained by public records request, the regional travel demand model (RTDM) outputs from Metro's work for the Interstate Bridge Replacement (IBR) project. (See: **Metro, 2024**. IBR Regional Transportation Demand Model Results, April 2024.) The \$7.5 billion IBR project is the single most expensive capital construction project in the 2024 RTP. One output of

²⁴ Thaya Patton, “Modeling 101, External Stakeholders Session, June 6, 2022

<https://www.oregonmetro.gov/modeling-services>

²⁵ Metro, “Travel demand modeling and emission estimation,” <https://www.oregonmetro.gov/modeling-services>



the RTDM is estimates of daily miles of vehicle travel in the Portland Metropolitan area in the target year (2045). This year also coincides with the horizon year for the Regional Transportation Plan.

According to the RTP environmental analysis Appendix J, per capita VMT in the Portland metropolitan area will decline 30% from 2010 levels. This amounts to a decrease of 1.5 percent per year between 2020 and 2045.

The modeling done for the IBR project predicts that total automobile VMT in the metropolitan area will increase from 41.1 million miles per day in 2015 to 55.3 million miles per day in 2045. Over this period of time, the population in the region is expected to grow from 1.66 million to 2.23 million. These figures mean that the Regional Travel Demand Model—which is the basis for the RTP—projects that VMT will be essentially the same in 2045 (24.8 miles per person per day) as it was in 2015 (24.7 miles per person per day). Metro’s RTDM projects, contrary to OAR 660-012-0160, that Metro area per capita VMT is flat for three decades. This is completely at odds with claims in Appendix J, that the region will reduce VMT per capita by 25-30 percent by 2045.

Regional Travel Demand Model, Interstate Bridge Project (Automobile)			
	2015	2045	Annual Growth Rate
VMT	41,106,947	55,286,217	
Population	1,664,000	2,232,525	
VMT/Capita	24.7	24.8	0.01%

* VMT from Metro RTDM Estimates, April 2024.

The OregonDOT and Washington DOT have used these estimates from the Metro Regional Travel Demand Model as the basis for their Draft Supplemental Environmental Impact Statement (DSEIS) for the Interstate Bridge Replacement Project. We obtained the DSEIS via a public records request. The Draft SDEIS shows that No-Build and Build traffic volumes used to model regional growth have much higher estimated growth than in the adopted Metro Regional Transportation Plan.

Table 3.1-2 from the DSEIS reports that current (2015) daily VMT in the Portland Metropolitan area were 43.1 million. This is consistent with the figures shown above, which include only automobiles.

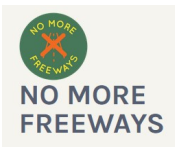


Table 3.1-10 reports that 2045 daily VMT in the Portland region will be 58.5 million in the No-Build, and a tiny amount less (58.7 million) in the various versions of the single Build alternative.

Interstate Bridge Replacement Program

Table 3.19-4. 2045 Weekday Daily Vehicle Miles of Travel, Vehicle Hours of Travel, and Vehicle Hours of Delay

Alternative	Area	Vehicle Miles of Travel	Vehicle Hours of Travel	Vehicle Hours of Delay
No-Build Alternative	Portland Metropolitan Region	58,835,800	1,793,400	64,000
	Traffic Subarea ^a	14,291,000	436,400	24,300
Modified LPA with one auxiliary lane	Portland Metropolitan Region	58,743,200	1,782,300	57,000
	Traffic Subarea	14,211,400	424,900	17,000

These figures imply a growth rate of average weekday VMT of 1 percent annually percent from 2015 through 2045. These estimated growth rates are inconsistent with the growth rate in VMT allowed for in the Metro RTP.

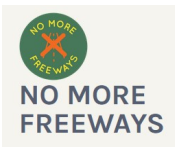
Importantly, this is the modeling that is being used to justify the projects, to evaluate their financial feasibility, to comply with federal planning requirements, and to disclose their environmental impacts. The Oregon Department of Transportation and Washington Department of Transportation are using the results of the regional travel demand model to determine the size of the Interstate Bridge Replacement Project. IBR project director Greg Johnson testified, for example, that the traffic model used to size the bridge and highway is Metro’s Regional Travel Demand Model. Johnson testified to the Metro Council on January 6, 2022, the IBR’s travel forecasts came from Metro travel projections:

The question regarding the investment grade traffic study. That's one that we're going to have our folks look deeply into as far as the timing, but I do want to want to correct a misnomer. That investment grade traffic study is not to size the bridge. What sizes the bridge is the data that we take from the regional models that are a part of Metro and RTC

...²⁶

Johnson repeated this statement in testimony to the Oregon Legislature. In a colloquy with

²⁶ Greg Johnson testifying at the Metro Council hearing on January 6, 2022. Transcribed from video record at: https://oregonmetro.granicus.com/MediaPlayer.php?view_id=1&clip_id=838



Representative Boshart-Davis, Johnson stated that the project’s modeling was “owned” and “created” by the planning organizations. Rep Boshart--Davis asked:

Mr. Johnson, you had mentioned that the IBR doesn't do the modeling. I think you said RTC and Metro does the modeling and provides that to you. Do you have the breakdown of the assumptions used for or the equation the data and the assumptions used for that modeling? And if so, would you be able to pass it on to the committee?

And Mr. Johnson answered:

Yes we can provide the data. It is a model that is owned by both of these entities. . . . This model has been recognized nationally as an excellent tool; one of the best tools that is owned by planning organizations. It is my understanding of the evaluation of the model that these folks have created and all.²⁷

Metro’s regional travel demand model—with its much higher level of future VMT/capita—and not the VisionEval model, is being used to plan the largest transportation project in the region.

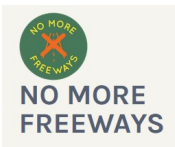
Alarmingly, the Climate Analysis for the Interstate Bridge Replacement SDEIS makes no mention of the CFEC rule. It recites a litany of Oregon and Washington Greenhouse Gas reduction policies but makes no mention of the state’s policy and Metro’s obligation to reduce VMT by 30 percent by 2050 in order to reduce greenhouse gas emissions.

Washington and Oregon have policies intended to promote a shift away from GHG emissions in the transportation sector. These transportation-related transition policies are summarized in Table 3.19-2.²⁸

Table 3.19-2 mentions Oregon’s Climate Protection program (focusing on fossil fuel use), Oregon’s Clean Fuels Program (mandating biofuels), Oregon’s Clean Energy targets (for electricity generation) and three “clean car programs”: Zero Emission Vehicles, Clean Cars and Clean Trucks, all of which address vehicle emission rates, but not VMT. Despite claiming to summarize “transportation-related” climate policies, ODOT and WSDOT’s description completely omits any mention of state and regional rules and plans that mandate a reduction in per capita VMT--almost certainly because the projections presented to justify the IBR project are predicated on absolutely no change in per capita VMT.

²⁷ State Representative Boshart-Davis questioning Greg Johnson at the Joint I-5 Bridge Committee hearing on December 12, 2022. Transcribed from video record at: <https://olis.oregonlegislature.gov/liz/mediaplayer/?clientID=4879615486&eventID=2022121059>

²⁸ IBR 2024, DSEIS



What this means, is that in the most fundamental way possible, the planning for the IBR project is completely at odds with, and in violation of the climate policy set forth Metro's adopted Regional Transportation Plan. The RTP (and the CFEC rule) require planning for a reduction in VMT/capita; the IBR environmental documents show that the agencies planning the single largest project in the RTP

f. Reliance on STS assumptions is at the option of Metro

Metro is under no compulsion to use the STS policy assumptions; But using the policy assumptions requires that Metro incorporate them into its planning and also support the policies.

(6) Metro shall adopt a regional transportation plan in which the projected VMT per capita at the horizon year using the financially-constrained project list is lower than the estimated VMT per capita at the base year by an amount that is consistent with the metropolitan greenhouse gas reduction targets in OAR 660-044-0020. Metro may rely on assumptions on future state and federal actions, including the following state-led actions that affect auto operating costs: (a) State-led pricing policies, and energy prices; and (b) Vehicle and fuel technology, including vehicle mix, vehicle fuel efficiency, fuel mix, and fuel carbon intensity.

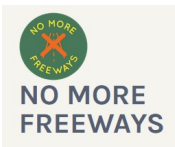
In adopting the Climate Friendly and Equitable Communities Rule which prescribes the process for measuring and achieving greenhouse gas reductions, DLCD made it clear that inclusion of STS policies was at the discretion of the metro area, not required by DLCD. It wrote:

It is important to note that the STS includes aggressive assumptions of state-led policies that are critical to meeting the statewide GHG reduction goal. These state-led pricing policies include:

- Pay as you drive insurance
- True cost pricing, including transportation system costs and social costs
- Congestion pricing
- VMT (VMT) tax

The proposed rules leave it to the discretion of each metropolitan area whether or not to include the state-led actions in the STS in projecting future emissions. Some of these state-led policies may not be supported in some areas. By including these actions, a metropolitan area would essentially be giving their support. If they do not support such policies, they have the flexibility to remove the assumption.²⁹

²⁹ DLCD, 2017. Rulemaking Advisory Committee Recommendations on Metropolitan Greenhouse Gas Reductions Targets, January 2017 page 10, (Emphasis Added), https://www.oregon.gov/lcd/CL/Documents/Target_Recommendations_Report_Final_2017.pdf



Metro has a choice - to include the STS state policy assumptions in its calculations of transportation need / VMT or not. However, it must choose one path or the other. and once it has chosen to assume that the state adopts a robust set of pricing policies, it must use them for the entirety of the Regional Transportation Plan.

III. Metro Fails to Prioritize GHG Reducing Investments

The RTP fails to prioritize transportation facilities based on greenhouse gas emission reductions and reducing vehicle miles of travel. The RTP offers no prioritization of investments based on whether they increase or decrease greenhouse gases. Instead, the RTP asserts that, because the entire RTP results in compliance with these goals, it is not necessary to even examine whether individual components of the RTP increase or decrease VMT. This is a violation of Goal 12 and its implementing rules.

A. Metro is required to prioritize transportation facilities based on meeting greenhouse gas reduction goals.

OAR 660-012-0155 directs Metro to prioritize transportation facilities and services based on meeting greenhouse gas reduction goals which provides, in relevant part:

(1) Cities, counties, Metro, and state agencies shall use the framework in this rule for decision making regarding prioritization of transportation facilities and services. Cities, counties, Metro, and state agencies shall consider the following:

(a) Prioritization factors as provided in section (3);

(3) Cities, counties, Metro, and state agencies shall prioritize transportation facilities and services based on the following factors:

(a) Meeting greenhouse gas reduction targets, including:

(A) Reducing per-capita VMT to meet greenhouse gas reduction targets provided in OAR 660-044-0020 or OAR 660-044-0025.

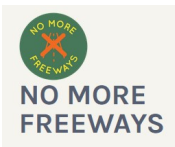
(B) Supporting compact, pedestrian-friendly patterns of development in urban areas, particularly in climate-friendly areas;

(C) Reducing single-occupant vehicle travel as a share of overall travel; and (D) Meeting performance targets set as provided in OAR 660-012-0910.

Taken together, the provisions of OAR 660-012-0155 direct Metro to prioritize facilities and services that reduce per-capita VMT to meet greenhouse gas targets.

B. Metro has determined that road projects are the least effective way to reduce greenhouse gasses of the policy alternative it evaluated.

Metro's Climate Smart Strategy rates the "relative climate benefit" of a range of transportation and land use policies. Metro explained their analysis as:



EXPLANATION OF THE CLIMATE BENEFIT RATINGS

In Phase 1 of the project, staff conducted a sensitivity analysis to better understand the greenhouse gas emissions reduction potential of individual policies. The information derived from the sensitivity analysis was used to develop a simplified five-star rating system for communicating the relative climate benefit of different policies.

Metro developed a “star” system for rating policies according to this analysis:

Policy	Description	Relative Climate Benefit
Land Use	Implement adopted local and regional land use plans	5 Star
Transit	Make transit convenient, frequent, accessible and affordable	5 Star
Parking	Make efficient use of vehicle parking and land dedicated to parking	4 Star
Walk/Bike	Make biking and walking safe and convenient	3 Star
TDM	Use technology to actively manage the transportation system	2 Star
Info.	Provide information and incentives to expand the use of travel options	3 Star
Roads	Make streets and highways safe, reliable and connected	1 Star





This analysis rates maintaining and expanding roadways as less than 1 percent, the lowest of any of the measures it evaluated (Climate Smart Strategy, page 17). Metro’s analysis concluded:

Roads: Relative to the other policy areas tested during Phase 1, the Roads policy area in Metropolitan GreenSTEP had the smallest effect on reducing regional greenhouse gas
Key and Ellis, 2012,




The Climate Smart Strategy--Metro’s adopted climate plan conceded that road projects have “low” impact on reducing GHGs. Metro’s 2018 RTP Monitoring Report confirmed that spending money on highways had the lowest potential carbon reduction impact of any of the strategies it considered. Each of 8 policy areas are ranked, as shown below.

Strategies Evaluated and Findings

Climate Smart Strategy | Largest potential carbon reduction impact*

	<p>Vehicles and Fuels (Investment)</p> <ul style="list-style-type: none"> Newer, more fuel efficient vehicles Low- and zero-emission vehicles Reduced carbon intensity of fuels
	<p>Pricing (Policy)</p> <ul style="list-style-type: none"> Carbon pricing Gas taxes Per-mile road usage charges (e.g., OReGO) Parking management and pricing Pay-as-you-drive private vehicle insurance
	<p>Community Design (Policy with Investment)</p> <ul style="list-style-type: none"> Walkable communities and job centers facilitated by compact land use in combination with walking, biking and transit connections
	<p>Transit (Investment)</p> <ul style="list-style-type: none"> Expanded transit coverage Expanded frequency of service Improvements in right-of-way to increase speed and reliability of buses and MAX

Climate Smart Strategy | Moderate potential carbon reduction impact*

	<p>Active Transportation (Investment)</p> <ul style="list-style-type: none"> New biking and walking connections to schools, jobs, downtowns and other community places
	<p>Travel Information and Incentives (Investment)</p> <ul style="list-style-type: none"> Commuter travel options programs Household individualized marketing programs Car-sharing and eco-driving techniques
	<p>System Management and Operations (Investment)</p> <ul style="list-style-type: none"> Variable message signs and speed limits Signal timing and ramp metering Transit signal priority, bus-only lanes, bus pull-outs Incident response detection and clearance

Climate Smart Strategy | Low potential carbon reduction impact*

	<p>Street and Highway Capacity (Investment)</p> <ul style="list-style-type: none"> New lane miles (e.g. general purpose lanes, auxiliary lanes)
---	---

Source: *Understanding Our Land Use and Transportation Choices Phase 1 Findings* (January 2012), Metro.

https://www.oregonmetro.gov/sites/default/files/2019/04/02/RTP-Appendix_J_Climate_Smart_Strategy_Monitoring181206.pdf

Specifically: this diagram says street and highway capacity investments have a low potential carbon reduction impact.

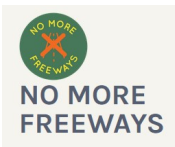
Climate Smart Strategy | Low potential carbon reduction impact*

	<p>Street and Highway Capacity (Investment)</p> <ul style="list-style-type: none"> New lane miles (e.g., general purpose lanes, auxiliary lanes)
---	--

Source: *Understanding Our Land Use and Transportation Choices Phase 1 Findings* (January 2012), Metro.

3.3 Metro's RTP Prioritizes Projects that won't decrease VMT

The RTP spends the bulk of its capital on projects that add capacity to freeways. Metro allocates the bulk of its funding to roads, the least effective measure for reducing greenhouse gas emissions.



Proposed Metro Transportation Capital Spending

Category	2014		2023	
	Climate Smart Strategy		Regional Transportation Plan	
Roads & Bridges	\$ 8,800	56%	\$ 16,725	68%
Transit	\$ 4,400	28%	\$ 4,200	17%
Walking & Biking	\$ 2,000	13%	\$ 3,100	13%
Info & Technology	\$ 391	3%	\$ 573	2%
Total	\$ 15,591	100%	\$ 24,598	100%

Sources:

Metro, Climate Smart Strategy, 2014

Pages 11-23 (Capital Cost Estimates)

<https://www.oregonmetro.gov/sites/default/files/2015/05/29/ClimateSmartStrategy-FinalVersion-2014.PDF>

Metro, Regional Transportation Plan, 2023

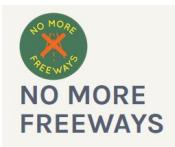
Executive Summary: Capital Projects by the Numbers (page 14)

<https://www.oregonmetro.gov/sites/default/files/2023/08/01/2023-RTP-Executive-summary-20230731.pdf>

3.4 Metro’s RTP policies make no effort to prioritize projects based on greenhouse gas or VMT reductions, nor does it even analyze the impact of projects.

The RTP claims it can simply ignore the climate impacts (both of individual projects, and the RTP collectively) because it demonstrates compliance with the state rule for the "overall plan" in Appendix J. The mileage estimates in Appendix I, coupled with an overwhelming amount of evidence of actual trends, indicates that the region will drive much more than is consistent with achieving greenhouse gas reduction goals in Appendix J.

Meeting the greenhouse gas reduction goal is a criterion applied—illegally—only to the **overall regional plan**, and **not to any specific projects**. The RTP includes this umbrella claim that greenhouse gas emissions need to be considered only overall where it states:



“VMT (VMT)/capita will be a controlling measure in both system planning and plan amendments to ensure that the planned transportation system and changes to the system support reduced VMT/capita by providing travel options that are complete and connected and that changes to land use reduce the overall need to drive from a regional perspective and are supportive of travel options.

- For system planning, the **final planned system must support** OAR 660 Division 44 (Metropolitan Greenhouse Gas (GHG) Emissions Reduction rule) and OAR 660 Division 12 VMT reduction targets.

- For plan amendments, VMT/capita will be used to determine whether the proposed plan amendment has a significant impact on regional VMT/capita that needs to be mitigated or not.

System completeness and **travel speed reliability on throughways** are secondary measures that **will be used to identify needs and inform the development** of the planned system.” (Emphasis added.) Page 3-60.

“Controlling measure” sounds imposing, but this is deceptive. In effect, the VMT reduction goals apply **only to the overall plan**, and to amendments to the plan. Projects included in the plan are given a pass by Metro on whether they increase or decrease VMT (and greenhouse gas emissions). While VMT is labeled as “a controlling measure” and travel speed is described as a “secondary measure,” the language of the RTP conceals the fact that it is this so-called secondary measure – travel speed—that really determines the priority for spending. **The RTP prioritizes project spending based on travel speed, not reducing VMT or greenhouse gases.** The RTP policies exempt individual projects from any greenhouse gas or VMT analysis, and instead prioritize travel speed, violate the requirement in OAR 660-012-0155 that the RTP prioritize projects that reduce VMT and greenhouse gases rather than travel speed.

IV. Failure to adjust policies to reflect current actions

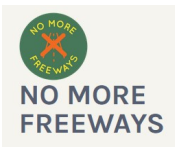
The Regional Transportation Plan assumes the existence of congestion pricing on the region’s throughways as a vital strategy to manage traffic congestion, finance roadways and achieve greenhouse gas reduction goals by reducing VMT. Pricing is a central policy of the RTP:

3.2.5.2 Pricing policies Pricing policies apply to the planning, implementation, monitoring and evaluation of pricing programs and projects in the region, as defined in Section 3.1.

Policy 1 Use pricing to improve reliability and efficiency of the transportation network, reduce VMT per capita, and increase transportation options.³⁰

The Regional Mobility Pricing Program (RMPP)—which would charge per mile fees on I-5 and I-205 in the Portland area—program is assumed to be part of the region’s “adopted policies” in

³⁰ Metro, Regional Transportation Plan, Page 3-46



Metro's VE/RSPM base case (labeled "RTP + AP"). Metro's modeling shows that this pricing is central to reduced VMT.

Governor Kotek canceled implementation of the Regional Mobility Pricing Program (RMPP) on March 11, 2024 (Kotek, 2024). In a letter to the Oregon Transportation Commission, Governor Kotek wrote:

After years of work, the challenges of implementing the Regional Mobility Pricing Project (RMPP) have grown larger than the anticipated benefits. Therefore, I believe it is time to bring the agency's work on the RMPP to an end and delay additional expenditures for implementation of tolling on I-205 to the future when the legislature can further evaluate and provide clearer direction on tolling.

...

The decision to stop the work on the RMPP, and pause development of Oregon's toll collection program, is not one I come to lightly.

The lack of RMPP/throughway pricing because of the Governor's action invalidates the adopted RTP. Because the pricing revenues will not be collected, the region will not have the revenues needed to implement the RTP. Because major throughways (I-5 and I-205) will not be priced, traffic congestion will be worse, and the region will fail to achieve the traffic performance levels promised in the RTP. Because major throughways (I-5 and I-205) will not be priced Portland residents will drive more miles, and the region will not achieve its VMT/capita reduction as required by OAR 660-012-0160(6)

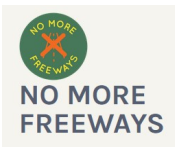
Metro's CFEC report makes no mention of the fact that RMPP and throughway pricing are now a dead letter. Because the state will not implement RMPP/throughway pricing, Metro cannot rely on the related reductions in VMT that would flow from this policy. Metro needs to revise and re-submit its monitoring report to reflect these changes.

Closing

In light of the laws and regulations cited here, and the evidence presented, it is clear that Metro has failed to meet its legal obligation for reporting actual progress in reducing vehicle miles traveled and greenhouse gasses, and that its Regional Transportation Plan fails to comply with the requirement that it plan for a 30 percent reduction in per capita vehicle miles traveled by 2045. For these reasons, DLCD is obligated by its regulations to find that the report is deficient, and make the finding provided for in OAR 660-012-920(4)(c) "that the submitter has not met a performance target set as provided in OAR 660-012-0910 and has proposed inadequate corrective actions."

Submitted for myself and also on behalf of No More Freeways,

Joseph Cortright



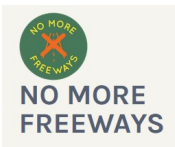
APPENDIX

1. Metro’s scenario plan calls for reducing VMT per person per day by about 1.08 percent per year from 2010 to 2045. Metro’s own tracking of VMT trends in the Portland area—not included in its CFEC Monitory report--shows that VMT declined at only about half that rate--0.57 percent annually—between 2010 and 2022 (the latest year for which data are available).
2. Metro’s scenario plan calls for vehicles to get vastly cleaner, with greenhouse gas emissions (measured in grams per mile driven) falling by more than 4.7 percent per year. According to ODOT data, Oregon vehicle fleet emission rate has improved at about one-fifth the required rate: 0.9 percent per year.
3. Each of these measures shows that the Metro region is not making progress fast enough to achieve its adopted targets. The Metro region is now about one-third of the way through the time period it has to achieve these climate goals (The Climate Smart Strategy was adopted in 2014, and the terminal year for the RTP is 2045). The far slower progress on each of these indicators is exactly what is required to be disclosed under OAR 660-012-0900, but Metro has failed to do so.
4. This is important because the statutory scheme of Oregon’s CFEC rules recognized that there was considerable uncertainty about many of the estimates underpinning state climate policy, and recognized further that if actual experience showed that progress wasn’t being made fast enough, that it would have to be acknowledged, and additional actions taken.
5. Metro’s failure to report and acknowledge its much lower progress in each of these dimensions fundamentally violates its obligations under OAR 660-012-0900.

**Average Growth Rate in Performance Measures, 2010
to latest data**

<u>Measure</u>	<u>Scenario</u>	<u>Actual</u>	<u>Latest Year</u>	<u>Source</u>
GHG	-5.74%	-0.40%	2023	Portland/Multnomah County
VMT	-1.08%	-0.57%	2022	Metro, VMT Portland Only
gm/mile	-4.73%	-0.90%	2020	ODOT, Transportation Emissions Website

6. **Metro failed to report on actual progress in VMT (VMT).**



- a. Metro actually produces data on regional VMT according to federally required data standards. This is the HM-71 series, which is regulated and supervised by the US Department of Transportation. Metro's own reporting of this data shows that Portland VMT per capita was 18.92 in 2010 and 17.66 in 2022. This means that VMT/capita declined at a rate of 0.58 percent per year between 2010 and 2022. Metro's RTP calls for VMT per capita to decline by a rate of 0.98 percent per year over the planning period to achieve compliance with state land use planning rules. Metro's own data shows that it is failing to make progress in attaining these goals.
 - b. Metro presents partial data without explanation, mis-stating 2010 Baseline VMT as 20 VMT/Capita (it was actually 18.92 miles per person per day) and providing 2020 VMT (without noting that this single year was depressed as a result of Covid 19), and omitting data on VMT through 2022 altogether..
7. ODOT's latest STS monitoring report concludes that the state (including the Portland MSA) is nowhere near to making sufficient progress to reduce VMT/capita.

ODOT's statewide estimates are that per capita driving has increased since 2010. The *Oregon Transportation Emissions* website, co-sponsored by DLCDC, reports statewide VMT/capita trends. Its latest 2020 "plans and trends" estimates show that statewide per capita VMT was 22.85 in 2010 and 23.80 in 2020, an increase of 0.41 percent per year.

In its narrative, ODOT concludes that Oregonians are not reducing their driving as much as called for in the STS, and are unlikely to do so. ODOT writes:

8. Current trends suggest that Oregonian's driving habits won't change much through 2050.

ODOT's analysis of driving trends in Oregon contradicts the implied claim in Metro's reporting that we have made progress reducing VMT/capita. Elsewhere in its report, Metro purports to rely on ODOT's conclusions about other performance measures (see discussion on Emission Factors, below). But in the case of VMT/capita trends, Metro simply chooses to ignore ODOT's finding that VMT/capita isn't declining anywhere near fast enough to achieve state climate objectives.

9. Metro's previous RTP (2018) monitoring report conceded that the region was failing to make adequate progress in reducing VMT:

As it kicked off the 2023 RTP, Metro conceded that it was not making adequate progress in reducing VMT.

The monitoring report that was included as part of the 2018 RTP concluded that the . . .the RTP fell short of targets for reducing VMT per capita, building bicycle and pedestrian infrastructure, and tripling walk, bike and transit mode share..

Specifically, the 2018 RTP acknowledged that Metro was nowhere close to being on track to meet VMT reduction targets:

2. The RTP makes progress toward the Climate Smart Strategy performance monitoring targets, but is not expected to meet regional policy targets for vehicle miles of travel, mode share and completion of the active transportation network by 2040, as shown in Chapter 7 of the plan.

- By 2040, the plan is expected to **achieve a 4 percent reduction in daily vehicle miles traveled (VMT)** per person, making progress toward the 10 percent per capita VMT reduction target in the RTP.

9. Transportation Greenhouse Gasses are increasing in the Metro Region

As part of the RTP planning process, Joe Cortright submitted detailed data from federal, state and local reports on trends in transportation greenhouse gasses. Each of these inventories shows that since the adoption of Metro’s climate smart strategy, transportation greenhouse gasses in the state and region have increased significantly.

Metro and the Oregon Department of Transportation have failed to track actual levels of greenhouse gas emissions from transportation in the Portland area. All of the objective, independent inventories of greenhouse gas emissions indicate that transportation greenhouse gases are increasing—by between 1.4 percent and 5 percent annually since 2014—not decreasing, as projected and assumed in the estimates used to demonstrate compliance with state laws. The actual data on transportation greenhouse gas emissions show that the region’s and the state’s efforts are failing. And they are not merely somehow making progress at a slower rate than hoped; emissions are increasing when Metro and ODOT models claim they are decreasing.

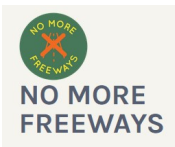
We have three different greenhouse gas inventories that cover all or part of the Portland Metropolitan Area. Each shows that transportation greenhouse gasses are increasing. The Oregon Department of Environmental Quality estimates transportation greenhouse gasses for the state. They estimate that Oregon transportation GHG emissions are up by 2.7 percent per year since 2013.³¹ The federally sponsored DARTE database of transportation GHG emissions, compiled by the Oak Ridge National Laboratory, estimates that in the three-county Portland area, transportation GHG emissions are up 4.9 percent per year since 2013.³² Portland’s Planning Bureau compiles emissions estimates for Multnomah County; they estimate transportation GHG emissions are up 1.4 percent per year in the county since 2013.³³

Metro’s adopted Climate Smart Strategy obligates Metro to monitor the effectiveness of its efforts and, should they be found wanting, to strengthen them. Metro has done neither of these things: Its RTP doesn’t include actual data on the increase in transportation greenhouse gases

³¹ Oregon Department of Environmental Quality, Oregon Greenhouse Gas Sector-Based Inventory Data, <https://www.oregon.gov/deq/ghgp/pages/ghg-inventory.aspx>.

³² DARTE Annual On-road CO2 Emissions on a 1-km Grid, Conterminous USA, V2, 1980-2017, https://daac.ornl.gov/cgi-bin/dsviewer.pl?ds_id=1735

³³ City of Portland, Bureau of Planning and Sustainability, Summary of 2020 Multnomah County Carbon Emissions and Trends, July 2022, <https://www.portland.gov/bps/climate-action/documents/multnomah-county-2020-carbon-emissions-and-trends/download>



since 2014. And because it doesn't acknowledge this failure, Metro has proposed no additional measures to put the region on a path to reverse this increase and achieve the even greater and faster reductions that are now required to achieve the adopted 2050 greenhouse gas reduction goal.

State law requires Metro to demonstrate, and the Land Conservation and Development Commission to acknowledge, that it is monitoring transportation greenhouse gas emissions, that it is reporting progress (or lack thereof) in meeting expected reduction targets, and to identify the reasons for any shortfalls, and corrective actions. Metro has failed to track its progress; transportation greenhouse gases are increasing even as Metro asserts it is "making progress" and consequently, Metro has failed to assess progress, identify the reasons for failure, or propose corrective actions. Unless and until Metro corrects these errors, the Land Conservation and Development Commission should find Metro's transportation plan and required reporting out of compliance with state law.

10. In adopting the RTP, Metro pledged to include actual data on VMT and GHG.

In response to Cortright's testimony noting the absence of actual reporting on transportation greenhouse gasses in Portland, Metro staff submitted a memorandum to the Metro Council (Ciarlo and Alfred, 2023) asserting that Metro would demonstrate its compliance with state law by monitoring and reporting state trends in GHG emissions:

"Metro will begin monitoring and reporting current trends in GHG emissions in the region and state based on the national Database of Road Transportation Emissions (DARTE)."

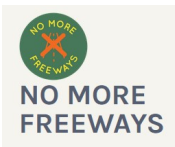
Ciarlo and Alfred Memo, "Response to Joe Cortright letter regarding RTP legal compliance, November 27, 2023, p. 3

In spite of this assurance, and even though it was in possession of Mr. Cortright's submitted data on transportation greenhouse gas emissions from three different responsible entities (US Department of Energy, Oregon Department of Environmental Quality and City of Portland), Metro included none of this data in its May 30, 2024 monitoring report.

11. Metro failed to provide current emission factors.

State regulations require Metro to report progress in reducing GHGs. This includes reporting progress on emission factors (i.e. the average number of grams per mile of greenhouse gasses produced by driving), as these are a "data element" used to project future greenhouse gasses under 660-044-0050

The requirement for reporting on this element (emission factors) for the purposes of reporting and monitoring under OAR 660-044-0050) is separate and distinct from the requirement that Metro use emission factors agreed to by ODOT and DLCDD for the purposes of future projections under OAR 660-044-0030 (3)) While Metro may be able to rely on those earlier figures for its projections of future compliance with greenhouse gas reduction requirements, it is separately required to report on the "actual" data. Again, the purpose of



reporting is to establish whether the plan is achieving its objectives, so that if necessary, additional and remedial actions can be taken. Metro violated its reporting obligations by failing to disclose that the region is further behind because vehicle emissions factors are higher than assumed in the 2013 STS.

There are three different sets of emission factors in play:

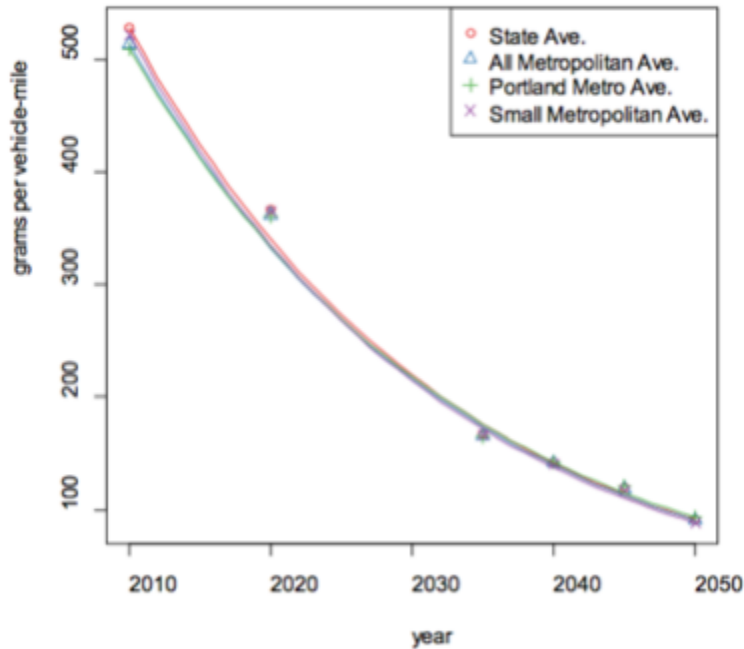
- (1) the emission factors embedded in the 2013 STS analysis and adopted by reference by DLCD in its direction on how future projections should be made,
- (2) the emission factors used by Metro in its calculations through the VE-RTSP modeling, and (3) emission factors reported by the Oregon Department of Transportation and DLCD on its Oregon Transportation Emissions website.

12. STS/DLCD Emission Factors

LCDC based its rules on emission reduction assumptions taken from the Oregon Department of Transportation's 2012 State Transportation Strategy (STS). LCDC constituted a technical committee and retained Brian Gregor (formerly of ODOT) to prepare a technical analysis, drawing on the STS to estimate how much reduction in greenhouse gasses could be expected from improving technology and changing vehicle mix. Gregor's analysis predicted that vehicles would become dramatically cleaner over the next several decades, with a reduction in greenhouse gasses per mile traveled of more than 80 percent by 2050. Gregor's analysis concluded that LCDC should assume that emissions per vehicle mile would decline by 67 percent by 2035, the terminal year for local land use plans. Importantly, LCDC wrote Gregor's assumptions about future vehicle emissions into its administrative rules (OAR 660-044-0020).

Gregor's analysis assumed that average vehicle emissions would decline to about 90 grams per mile by 2050. Gregor reached these conclusions by assuming that fuel efficiency and zero emission vehicle regulations would steadily improve new vehicle emissions, and that over time, these would change overall fleet emissions. The report assumed that average vehicle age would be 11 years, and that average fleet vehicle economy in any year would be equal to the average new car fuel economy for vehicles sold 11 years earlier. Gregor's calculations imply a base level of emissions of about 520 grams per mile in 2005. New cars would be assumed to achieve 100 grams per mile in 2035, and the fleet as a whole would achieve 100 grams per mile in 2046, and about 90 grams per mile by 2050. Gregor summarized his assumptions in this chart:

Figure 2: Fleet-wide Average Light-duty Vehicle Emissions Rates Modeled for the STS Recommended Scenario and Future Trend Lines



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As Gregor writes: “Average vehicle emissions rates would need to decline by a little over 4% per year from the 2010 estimated average in order to achieve the recommended level in 2050.”

13. Metro VE-RSPM Emission Factors

Metro has done its own modeling which uses very aggressive rates of emissions reduction per mile of driving. Metro assumes that per mile greenhouse gas emissions will fall from 524 grams/mile in 2010 to 357 grams per mile in 2020, and that emission reductions will continue at this pace through 2045, when they are expected to reach 100 grams per mile. This is a decrease of 4.7 percent per year.

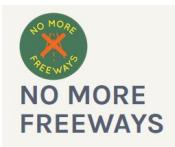


Exhibit E: Major Report Describing Progress Toward Climate Performance Targets

Measure and Description	Year	VisionEval RSPM – Metro Target Rule Model (RTP+STS Scenario)
	2045	53.3
Average GHG emissions rate (Grams CO2 Equivalent/mile)	2010	524
	2020	357
	2030	180
Calculated from VE output: Daily CO2e/DVMT	2035	145
	2040	126
Rates are fleet-wide composites	2045	100

Source: Metro (VE Target Rule Model Results)

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State climate rules require Metro to use emission rates agreed to by ODOT and DLCD for projections and modeling of future emissions. OAR 660-044-0030 (3) provides:

(3) Projected Emission Rates: **Projections** of greenhouse gas emissions must use emission rates based on the Statewide Transportation Strategy as adopted by the Oregon Transportation Commission that reflect the reductions likely to result by the use of improved vehicle technologies and fuels. Metropolitan area greenhouse gas target **modeling efforts** must rely on emission rates agreed to by the Oregon Department of Transportation and the department to ensure this compliance.

<https://secure.sos.state.or.us/oard/viewSingleRule.action?ruleVrsnRsn=293065>

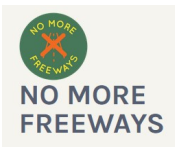
(Emphasis added)

While modeling efforts to project future emissions rates are taken from the 2013 STS, these restrictions do not apply to reporting actual progress to date. Metro is obligated to disclose whether the region (and the state) are making the hoped for progress in reducing emissions per vehicle mile as part of its reporting under OAR 660-012-0900.

14. ODOT/DLCD/DEQ/DOE 2022 Emission Factors

The latest State Transportation Strategy monitoring information presented on the "Oregon Transportation Emissions Website" jointly authored by ODOT, DLCD and other state agencies contained updated estimates of emission factors through 2020. These estimates show that we're making vastly less progress than this. ODOT provided the website's latest STS "plans and trends" estimates of greenhouse gas emissions per mile in response to a public records request. They are as follows:

³⁵ Metro, CFEC Report, 2024, page E-27



Reported Emission Rates: Grams/Mile

	<u>STS</u>	<u>Metro/RTP</u>	<u>ODOT</u>
2010	510	524	653
2020	330	357	596
2010-2020	-35%	-32%	9%

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ODOT and DLCD have arguably "agreed to" emission rates in their climate modeling website.

The "About" page for the website describes it as:

The multi-agency collaboration aims to get Oregon back on track with the Statewide Transportation Strategy goals.
 In 2022, state agencies check their progress after making adjustments over the last four years.

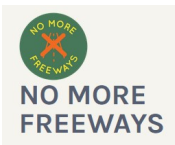
The website shows that the results are authored jointly by ODOT and DLCD as well as the state energy and environmental quality departments.

The Oregon Transportation Emissions Website was developed by:



Metro specifically references the emission factors reported on this website and claims that this shows the state is making great progress Metro says in its CFEC report: (Metro, CFEC Report, page 6):

³⁶ STS: ODOT State Transportation Strategy, 2013; Metro/RTP: Metro Regional Transportation Plan, 2023; ODOT: Transportation Emission Website, 2022 "Plans and Trends"



The Oregon Transportation Emissions website monitors the state's progress on the Statewide Transportation Strategy, including "Emissions per Vehicle mile" on the Progress page, and further actions by category. <https://www.oregontransportationemissions.com/progress>

As the state's monitoring shows,[31] Oregon is on track to meet the STS goal to "clean up every mile," because the faster-than-expected roll-out of EVs compensates for the slower-than-expected uptake of EVs and older, larger vehicles remaining in use. In the future, DMV registration fees could be set to incentivize smaller vehicles.

fn. 31 The Oregon Transportation Emissions website monitors the state's progress on the Statewide Transportation Strategy, including "Emissions per Vehicle mile" on the Progress page, and further actions by category. <https://www.oregontransportationemissions.com/progress>
Metro, 2024 CFEC Report, page 6.

But when you go to footnote 31, and the ODOT website, it shows nothing of the kind. In fact, per mile emissions are barely edging downward and are declining at a much lower rate than assumed in Metro's modeling for the Regional Transportation Plan.

The 2022 Oregon Transportation Emissions Website modeling shows that greenhouse gas emissions per mile are actually declining at a rate of less than 1 percent per year, only one-fourth as fast as assumed in Metro's modeling. The Oregon Transportation Emissions webpage reports that between 2010 and 2020, emissions rates declined from 653 grams/mile in 2010 to 596 grams per mile in 2020, a decline of just 0.9 percent per year. The Metro RTP, based on the STS 2013 estimates, assumed that emissions rates (grams/mile) would decline by about 4.7 percent per year over the life of the forecast.

15. Metro does not report on the actual emission factors, as calculated by ODOT. Therefore its plan mis-states and overstates progress toward reducing greenhouse gases.

In 2045, according to the latest estimates from the Oregon Transportation Emissions website, per mile emissions are expected to be almost double (180 grams per mile rather than 100 grams per mile) the level assumed in Metro's RTP greenhouse gas analysis.

Metro is both violating state administrative laws—which require them to use ODOT's emission factors, and also violating their own adopted Climate Smart Strategy, which requires them--independent of compliance with state rules--to monitor their strategy and make adjustments if it is not achieving planned progress.

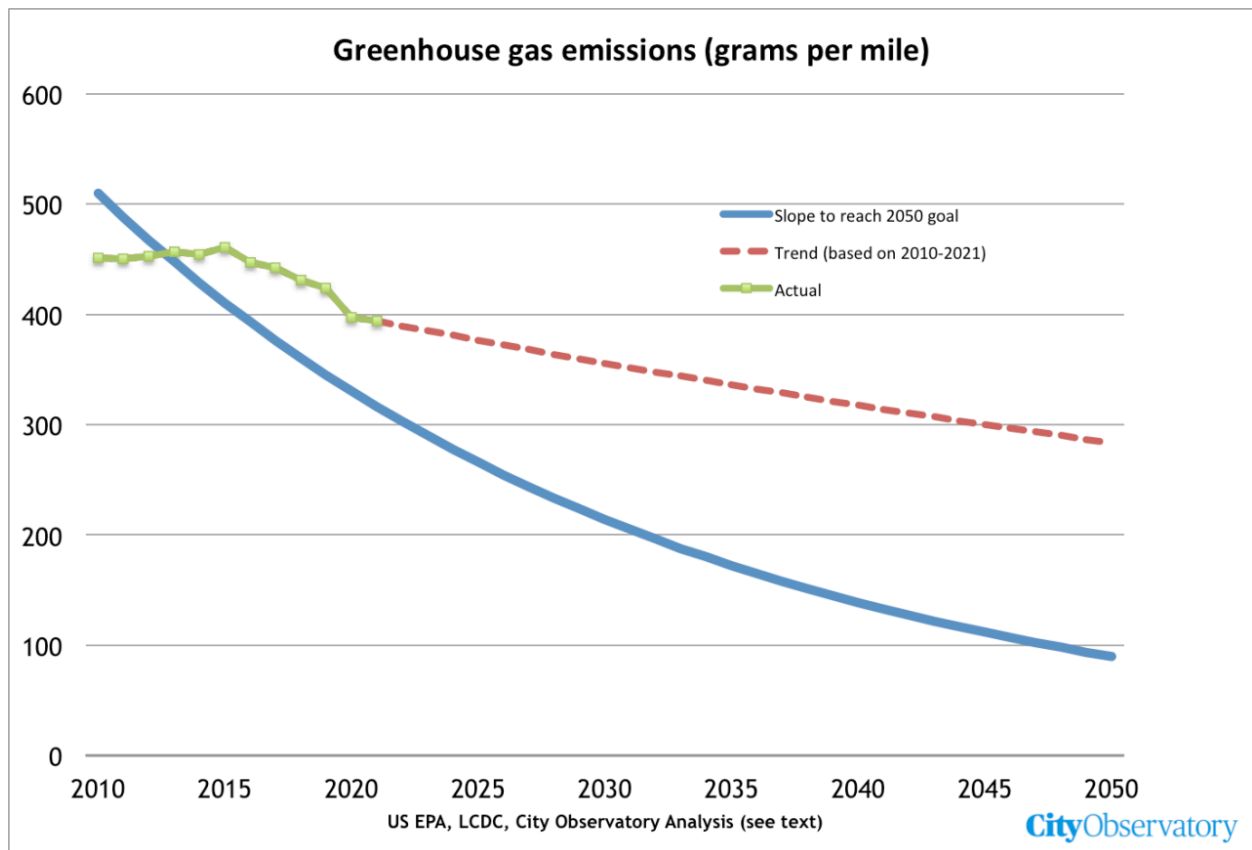
What OAR 660-044-0050 requires Metro to do is report on baseline emission factors, and the actual change in emission factors, and look to see if the progress being made matches the expectations set in the STS and the RTP. This evidence shows that emission rates--a performance measure under OAR 660-044-0050--are not making progress as anticipated. Metro is obligated to acknowledge this short-coming, identify the reasons for its causes, and take corrective action. It has done none of these things.

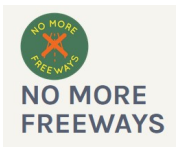
Metro acknowledges that the policy implications of a lower rate of progress in reducing emissions per vehicle mile will necessitate even larger reductions in VMT per capita under state and local plans.

16. EPA data show that emissions rates are not declining as fast as called for in Oregon’s STS.

We have roughly a decade of data on the actual rate of improvement in new vehicle emission rates. According to the Environmental Protection Agency, average emissions for new light vehicles have fallen from about 450 grams per mile in 2005 to about 348 grams per mile in 2021. By Gregor’s approach, at that rate of improvement, average fleet efficiency in 2032 (eleven years from now) will be about 348 grams per mile. In the past decade (2010 through 2021), the number of grams per mile has declined at about a 1.1 percent annual rate. This is roughly only one-fourth the rate of improvement assumed in Gregor’s calculation and LCDCs target rules.

The following chart shows the difference between Gregor’s estimate of the path of vehicle emissions (blue), and the actual improvement in emissions between 2010 and 2021 (green). The red dashed line shows the trend in vehicle emissions based on the 2010 to 2021 growth rate of -1.1 percent per year extended through 2050.





At current rates of improvement, per mile emissions are likely to be almost three times higher in 2050 than forecast in Gregor's model, i.e. almost 300 grams per mile, rather than less than 100 grams per mile.

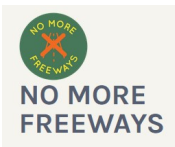


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